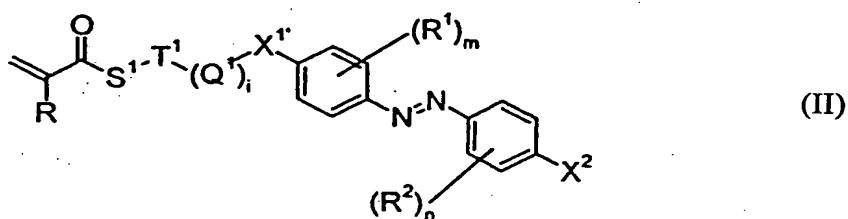## AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1-22.   (Cancelled).

Claim 23.   (Currently Amended):   The method of Claim [22] <u>24</u> further comprising angle-dependent reading of a volume hologram.

Claim 24.   (New):   A method of using a recording material for a holographic volume storage medium containing at least one dye which changes its spatial arrangement when a hologram is recorded and optionally at least one shape –anisotropic grouping, where the dye permits the recording of at least three holograms at one specimen position without unacceptably diminishing, completely damaging or entirely overwriting the holograms already recorded in said material, with the proviso that the recording material comprise poly(meth)acrylate and has an irradiated thickness of 1.0 mm to 5 cm. and at least one dye has an absorption maximum of the $\pi\pi^*$ band that is less than or equal to 400 nm and the dye conforming structurally to formula (II):
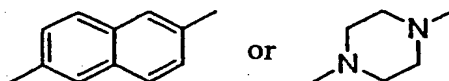

(II)

wherein R represents hydrogen or methyl ,R^1 and R^2 each independently of the other
represents hydrogen or a non ionic substituent, and R^1 may additionally
represent $-X^{1'}-R^3$, m and n each independently of the other represents
an integer from 0 to 4, X^2 represents $X^{2'}-R^4$, and $X^{1'}$ and $X^{2'}$
independently represent a direct bond, -O-, -S-, $-(N-R^5)-$, $-C(R^6R^7)-$, -
$(C=O)-$, $-(CO-O)-$, $-(CO-NR^5)-$, $-(SO_2)-$, $-(SO_2-O)-$, $-(SO_2-NR^5)-$, -
$(C=NR^8)-$ or $-(CNR^8-NR^5)-$,

R^3, R^4, R^5 and R^8 each independently of the others represents hydrogen, C_1- to C_{20}-alkyl, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl, C_6- to C_{10}-aryl, C_1- to C_{20}-alkyl-$(C=O)$-, C_3- to C_{10}-cycloalkyl-$(C=O)$-, C_2- to C_{20}-alkenyl-$(C=O)$-, C_6- to C_{10}-aryl-$(C=O)$-, C_1- to C_{20}-alkyl-(SO_2)-, C_3- to C_{10}-cycloalkyl-(SO_2)-, C_2- to C_{20}-alkenyl-(SO_2)- or C_6- to C_{10}-aryl-(SO_2)-, or $X^{2'}$-R^4 may represent hydrogen, halogen, cyano, nitro, CF_3 or CCl_3,

R^6 and R^7 each independently of the other represents hydrogen, halogen, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl or C_6- to C_{10}-aryl,

Q^1 represents -O-, -S-, -(N-R^5)-, -C(R^6R^7)-, -(C=O)-, -(CO-O)-, -(CO-NR^5)-, -(SO_2)-, -(SO_2-O)-, -(SO_2-NR^5)-, -(C=NR^8)-, -(CNR^8-NR^5)-, -(CH$_2$)$_p$-, p- or m-C_6H_4- or a divalent radical of the formula:

or

i represents an integer from 0 to 4, T^1 represents -(CH$_2$)$_p$-, wherein the chain may be interrupted by -O-, -NR^9- or -OSiR^{10}_2O-, S^1 represents a direct bond, -O-, -S- or -NR^9-, p represents an integer from 2 to 12, R^9 represents hydrogen, methyl, ethyl or propyl and R^{10} represents methyl or ethyl.